

## **REMARKS**

### **The Amendments**

Claim 33 is amended to specify the substance and thus address the 35 U.S.C. §112 rejections as discussed below.

Applicants reserve the right to file one or more continuing and/or divisional applications directed to any subject matter disclosed in the application which has been canceled by any of the above amendments.

### **The Rejection under 35 U.S.C. §112, first paragraph**

The rejection of claims 33, 38, 40, 42, 46-51, 53-55 and 57-63 under 35 U.S.C. §112, first paragraph, for lack of written description is respectfully traversed.

It is believed the rejection may be rendered moot by the above amendments. The rejection appears to be based on the allegation that there is insufficient description of a “drug that kills fat cells.” That term is no longer recited in the claims. The substance used in the method is now recited as specific compounds or a specific, well-identified class of compounds. These compounds or classes of compounds are well known to one of ordinary skill in the art. Note that claims 51 and 59 and claims dependent thereon never recited the broader terms. They are directed to embodiments where the active substance is a beta-adrenergic stimulator.

Further, these compounds or classes of compounds are specifically recited in the instant disclosure. Thus, there is explicit written description of these terms. These terms were also recited in the original claims, e.g., original claim 4. When the claims recite language as essentially recited in the original claims, there is a strong presumption that an adequate written description of the claimed invention is present; see, e.g., In re Wertheim,

541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976), and MPEP 2163, part I. A. It is possible that lack of adequate written description may arise for terms in an original claim when an aspect of the claimed invention has not been described with sufficient particularity so that one skilled in the art would recognize that the applicant had possession of the claimed invention. But this is only the case when the claims require an essential or critical feature which is not adequately described in the specification and which is not conventional in the art or known to one of ordinary skill in the art. There is no basis on the record here to support the PTO's burden to overcome the strong presumption of written description or a showing by the PTO that the terms in question are not conventional in the art or known to one of ordinary skill in the art. To the contrary, the terms in question here have a well known meaning in the art.

Adequate written description under 35 U.S.C. §112, first paragraph, is not imposed under a strict standard but one applied under reasonableness principles, i.e., the disclosure need only "reasonably convey" to those in the art that the inventors possessed the invention; see, e.g., Fujikawa v. Wattanasin, 39 USPQ2d 1895, 1904 (Fed. Cir. 1996). In the instant case, due to the conventional knowledge in the art regarding the terms in question, one of ordinary skill in the art is reasonably conveyed that applicants possessed the invention as claimed.

For at least the above reasons, it is urged that the claimed invention has adequate written description in the original disclosure and the rejection under 35 U.S.C. §112, first paragraph, for lack of written description, should be withdrawn.

#### **The Rejection under 35 U.S.C. §112, second paragraph**

The rejection of claim 33 under 35 U.S.C. §112, second paragraph, is believed to be rendered moot by the above amendments. The claims no longer recite the language alleged

to recite narrow terms encompassed by broad terms.

### **The Rejection under 35 U.S.C. §103**

The rejection of claims 33, 36, 38, 40, 42 and 46-63 under 35 U.S.C. §103, as being obvious over Friedman (U.S. Patent No. 6,124,439), Greenway (U.S. Patent No. 4,588,724), Woiszwillo (U.S. Patent No. 5,981,719) and Neville (U.S. Patent No. 5,066,490) in view of Acharya (U.S. Patent No. 5,686,094), Hubbell (U.S. Patent No. 6,129,761) and Shah (U.S. Patent No. 6,020,004), is respectfully traversed.

The statement of the rejection again discusses what each of the references individually teaches and how each reference discloses some element which is allegedly part of the claimed invention. It also discusses why such features were found advantageous for each of the reference inventions. But the Office action still provides no objective reasons why one of ordinary skill in the art would pick and choose amongst the various features of the prior art references only those specific parts which can be combined to allegedly result in the claimed invention. In KSR International Co. v. Teleflex Inc., 550 U.S. \_\_, 82 USPQ2d 1385 (2007), the Supreme Court cited with approval In re Kahn, 441 F. 3d 977, 988 (Fed. Cir. 2006), stating: “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” While the statement of the rejection articulates reasons why the references individually disclose certain elements and why one of ordinary skill in the art would be motivated to use those elements in those inventions, **there is no articulated reasoning as to why one of ordinary skill in the art would combine these elements.** The Office action merely concludes that one of ordinary skill in the art would have a reasonable expectation of success of carrying out the claimed invention in view of the reference teachings and therefore it is obvious. But no reasons are

given why this would be so. Further, no reasons are given for why one of ordinary skill in the art would make all the selections necessary from among the seven cited references and combine them in a way which results in the claimed invention. Merely because separate references teach the separate elements of the invention does not support obviousness of their combination. To the contrary, it is well settled that even if the elements of combination invention are known the combination may be patentable; see, e.g., Rosemount, Inc. v. Beckmann Instruments, Inc., 221 USPQ 1, 7 (Fed. Cir. 1984); and, Ryko Manufacturing Co. v. Nu-Star, Inc., 21 USPQ2d 1053 (Fed. Cir. 1991), stating, "For a combination or any other invention to have been obvious, the prior art must suggest the desirability of making the claimed invention."

In reply to these same arguments previously made, the current Office action cites case law recognizing the need for a reason to combine the elements as recited in the claims. However, there is still no reason provided for the combination except for the merely conclusory statement that "knowledge generally available to one of ordinary skill in the art is replete with the invitation to explore variable combinations or modifications of the teachings of the prior art." It is exactly this kind of conclusory statement that the Supreme Court rejected in the KSR decision. The PTO has failed to provide any "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" as required by KSR.

Further, the fact that it was necessary to combine elements from seven different references to somehow re-construct the claimed invention makes it even more critical that articulated reasons be provided as to why one of ordinary skill in the art would select and combine the discrete elements of these references which were necessary to arrive at the claimed invention. Although it is true that a rejection is not improper merely because it relies on a large number of references, it is also true that the references cannot be viewed using

applicant's own disclosure as a blueprint or guide to selectively pick discrete elements of the references and piece them together to arrive at the invention. See, e.g., Grain Processing v. American Maize, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988); and Orthopedic Equipment Co., Inc. v. United States, 217 USPQ 193, 199 (Fed. Cir. 1983). Applicants can see no reason (and no reasons are articulated in the Office action) to select specific teachings from the seven different references and combine them in a way which arrives at the particular combination of the claimed invention, absent reliance on applicants' own disclosure. There are at least thousands of other possible combinations which could be arrived at from the references and no direction to applicants' particular combination is apparent.

It is further alleged in the Office action that the reason to combine the references is supported because the references are drawn to common subject matter. This is also merely a conclusory statement and, in any event, is incorrect. As made clear from the discussion of the references below, some of the references are directed to divergent subject matter and those that are directed to common subject matter relate to subject matter distinct from the claimed invention, e.g., macromolecules.

For the above reasons, it is urged that the claimed invention is not rendered obvious from the cited prior art and the rejection under 35 U.S.C. §103 should be withdrawn. But further discussion of the specific references is provided below for completeness.

Friedman is directed to providing macromolecular nucleic acids or protein compounds connected with the OB gene for controlling body weight. Friedman is thus not directed to methods for controlling body weight using a substance as defined by the instant claims, i.e., "methotrexate; bromo-deoxyuridine; actinomycin D; nocodazole; brefeldin A; a beta-adrenergic stimulator; or, an alpha-2 adrenergic inhibitor." To the contrary, providing a macromolecular polypeptide compound is the primary feature of the Friedman invention and replacing it with one of these substances – none of which are macromolecules – would be

directly contrary to the objectives of the reference. In such case, not only would there be no reason for one of ordinary skill in the art to make such a modification but the reference would direct away from such a modification. The Office action in the paragraph bridging pages 3-4 appears to be arguing that the “macromolecules” in Friedman can be interpreted to encompass the small molecule substances recited in the instant claims. Applicants strongly disagree with such an interpretation. It is plainly evident to one of ordinary skill in the art that the substances recited in the instant claims would never be considered to be macromolecular nucleic acids or protein compounds as required in Friedman. There is no basis in fact for such an interpretation.

Further, Friedman fails to suggest a method for “administering a controlled release formulation to the patient by injection into the adipose tissue at a local area such that undesired adipose tissue in the local area is selectively reduced.” Friedman generically lists “injection” broadly as one manner of administration but there is no indication of local administration by injection for a local effect. To the contrary, all the further discussion in Friedman, cols. 43-47, is directed to systemic administration methods for a general effect. No reason is provided to support why one of ordinary skill in the art would modify Friedman’s method to conduct local administration to achieve a local effect or use a controlled release carrier.

Greenway discloses the use of a beta-adrenergic stimulator or an alpha-2 adrenergic inhibitor to achieve regional weight reduction in humans. There is no objective reasoning articulated for why one of ordinary skill in the art would use the Greenway compounds in the Friedman method. Again, Friedman requires the use of macromolecular nucleic acids or protein compounds and the compounds disclosed in Greenway are in no way related to such compounds. Further, Greenway also provides no suggestion of administering the compounds as a controlled release formulation in its method.

Woiszwillo is directed to microparticles of a macromolecule mixed with a polymer. Applicants see no relation of this to the claimed invention. The claimed method relates to administering a substance in a particular defined way for a particular defined effect where the “substance is methotrexate; bromo-deoxyuridine; actinomycin D; nocodazole; brefeldin A; a beta-adrenergic stimulator; or, an alpha-2 adrenergic inhibitor,” not a macromolecule. See the distinction made of Friedman above. While the controlled release carrier in the claimed invention can be a PEG-macromolecule, this is just the carrier and the active agent is one the above-recited substances carried by it. Woiszwillo discloses that its particles can be used to provide sustained release of a macromolecule, among a wide variety of other uses. However, it teaches nothing regarding controlled release of a substance as recited in the instant claims or methods for administering such a substance in a controlled release formulation by injection into the adipose tissue at a local area such that undesired adipose tissue in the local area is selectively reduced.

Neville, similar to Woiszwillo, is directed to carrier materials for macromolecules, such as proteins or enzymes. Neville discusses as part of the prior art (col. 4, lines 9-22) that PEG-conjugated proteins had been used to deliver enzyme proteins. However, this again relates to carriers for macromolecules, not the small molecule substances as recited in the instant claims. Further, Neville indicates that these materials have problems in relation to its materials. Finally, like Woiszwillo, Neville provides no suggestion that its materials would be useful in a method for administering a substance as claimed in a controlled release formulation by injection into the adipose tissue at a local area such that undesired adipose tissue in the local area is selectively reduced.

Acharya is directed to a very specific polymer carrier system designed for very specific uses. The carrier is of calcium polycarbophil. The uses are described at cols. 3 and 4 but include no hint of methods for administering a substance in a controlled release

formulation by injection into the adipose tissue at a local area such that undesired adipose tissue in the local area is selectively reduced.

Hubell is directed to a carrier for injecting isolated cells. It has no relation to a formulation for controlled release of a small molecule substance such as recited in the instant claims. Further, it has no relation to a method for administering such a substance in a controlled release formulation by injection into the adipose tissue at a local area such that undesired adipose tissue in the local area is selectively reduced. No connection to the claimed invention is apparent.

Shah is similar to Neville and Woiszwillo. Shah is primarily directed to polymeric microparticles useful as carriers for macromolecules, particularly therapeutic proteins; see, e.g., col. 1, lines 13-27. Shah does generally discuss a broader applicability, including for small molecules, e.g., col. 4, lines 51-65. But the reference provides no suggestion that its materials would be useful in a method for administering a substance as recited in the instant claims in a controlled release formulation by injection into the adipose tissue at a local area such that undesired adipose tissue in the local area is selectively reduced. Shah's disclosure as a whole makes clear that it is primarily directed to providing carriers for proteins. Thus, applicants see no reason why one of ordinary skill in the art would have reason to use Shah's carrier in a method for administering a substance as claimed in the very specific way claimed for the very specific purpose claimed, neither of which have any mention by Shah.

For all of the above reasons, it is urged that the references considered as a whole do not suggest the claimed invention to one of ordinary skill in the art. As discussed above, there is no reason set forth or apparent on the record why one of ordinary skill in the art would combine the various reference teachings in a manner which suggests the claimed invention. No articulated reasoning is provided for why one of ordinary skill in the art would arrive at the specific combination of specific aspects of the claimed invention. Thus, the

claimed invention is not rendered obvious under 35 U.S.C. §103 and the rejection should be withdrawn.

It is submitted that the claims are in condition for allowance. However, the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any additional fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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